

Appendix B—In-house Reports on Data Quality

Title: Pre-Clearance Report on Petroleum Supply

Transmitted: November 1987 to Jimmie Petersen, Director, Office of Oil and Gas

Contributors: Renee Miller (EIA) and Harry Chernoff (then of Science Applications International Corporation—SAIC)

Surveys covered: Forms that comprised the Petroleum Supply Reporting System

Methodology: Examined issues related to forms design such as data comparability and justification of frequency of collection, shifts in the industry's structure that may affect the data collection, and issues arising from data evaluations that may affect collection and publication of the data

Title: Pre-Clearance Report on Electric Power

Transmitted: March 1989 to John Geidl, Director, Office of Coal, Nuclear, Electric and Alternate Fuels

Contributors: Renee Miller, Bill Meroney, Elizabeth Titus, Marie Beth Hall (then of SAIC), and Tom Devlin, Lillian Young (SAIC)

Surveys covered: Electric Power bundle¹ and two related Federal Energy Regulatory Commission (FERC) surveys

Methodology: Examined potential ambiguities in the data collection effort, data duplication, industry trends that may have affected the data collected and recommendations from previous quality assurance activities to determine which ones still needed to be addressed

Title: Pre-Clearance Report on Petroleum Marketing Forms

Transmitted: March 1990 to Larry Pettis, Deputy Administrator, EIA

Contributors: Renee Miller, Bill Meroney and Elizabeth Titus, Marie Beth Hall (then of SAIC), Lillian Young (SAIC)

Surveys covered: Petroleum Marketing bundle which consisted of 8 survey forms

Methodology: Electric power activities plus examination of the use of data in publications and models and current quality assurance activities

Title: Audit/Preclearance Report on Coal Data Collection Forms

Transmitted: August 1991 to Calvin A. Kent, Administrator, EIA

Contributors: Renee Miller, Howard Magnas (EIA), Heather Smith and others from Westat and Allied Technology Group, Marie Beth Hall, Lillian Young (SAIC)

Surveys covered: Coal bundle consisting of 4 survey forms

Methodology: Petroleum marketing activities plus a review of standards and documentation focusing on response, nonresponse, and processing error. The examination of quality control procedures included observation of the procedures as well as interviews with survey staff and was more comprehensive than for the petroleum marketing examination.

¹ Related survey forms in a program area are "bundled" for the Office of Management Clearance process so that they are all reviewed and cleared at the same time. The electric power bundle consisted of six survey forms when this review was done.

Title: Audit/Preclearance Report on Natural Gas Collection Forms

Transmitted: April 1993 to Larry Pettis, Deputy Administrator, EIA

Contributors: Renee Miller, Howard Magnas, Antoinette Ware Martin, Donald Martin (EIA), David Price, Jean Schuler, Fouad Moumen (Washington Consulting Group), Marie Beth Hall, Lillian Young, SAIC

Surveys covered: Natural Gas bundle consisting of 3 survey forms

Methodology: Coal activities plus a review of the explanatory notes to highlight areas that needed to be enhanced. The examination of trends that may have affected the data collection also included a review of recommendations from several sources: the National Research Council Panel on Statistics on Natural Gas as presented in the report, "Natural Gas Data Needs in a Changing Regulatory Environment," completed in September 1984; independent expert reviewers, and EIA modelers. We also compared preliminary monthly and final data and edited and unedited data. During this study we also looked at anomalies found during data evaluations to determine whether they were due to gaps in quality control procedures.

Title: Electric Power Data Evaluation

Transmitted: September 1994 to Jay Hakes, Administrator, EIA

Contributors: Renee Miller, Antoinette Ware Martin, William Weinig, Stanley E. Paul (EIA), William Connors, John Whitney (ANSTEC)

Surveys covered: Electric Power bundle which included 6 surveys plus 3 related surveys

Methodology: Many of the activities covered in the natural gas and coal reviews but repackaged to answer the following 4 questions: 1) Are the quality control procedures in place adequate to control error that can enter the survey data, not due to sampling procedures, 2) Do the data measure what they purport to measure, 3) Is EIA collecting the right data to reflect a changing industry, and 4) Are the explanatory notes and survey documentation adequate? In this study, we honed our procedures for examining quality control procedures and developed checklists to use in our review.

Title: Review of Energy Consumption Data

Transmitted: date unknown, most likely in 1996 to Jay Hakes, Administrator, EIA

Contributors: Renee Miller, Thomas Broene, Ruey-Pyng Lu, Antoinette Ware Martin (EIA), Thomas B. Jabine (consultant), William Connors (Applied Technology Group)

Methodology: Similar to Electric Power Data Evaluation but also focused on whether there was a better way to publish the data. Our 4 study questions were: Are we collecting the right data, 2) What do we know about the quality of the data and the data collection procedures, 3) Is there a better way to collect and process the data, 4) Is there a better way to publish the data?

Note: All in-house data quality studies were completed under the direction of Yvonne M. Bishop, Director of the Office of Statistical Standards, Douglas R. Hale, Director of Quality Assurance Division and Stanley R. Freedman, Team Leader of the Data Quality Team